This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. 1 (Currently Amended) A mixer circuit for reducing the power level of spurious output signals, the mixer comprising:

a first mixer stage which includes a first mixer with first and second input ports and ~~an~~ a first output port, said first input port for receiving an input signal and mixing said input signal with a modulated first local oscillator signal to generate a first output signal having a first frequency and spurious output signals at frequencies other than said first frequency;

a second mixer stage which includes a second mixer with third and fourth input ports and a second output port, said first output port of said first mixer electrically coupled to said third input port of said second mixer for mixing said first output signal from said first mixer with a modulated second local oscillator signal and generating a second output signal at a second frequency and spurious output signals at frequencies other than said first frequency and said second frequency;

a phase modulator for phase modulating a first local oscillator signal, modulated by a pseudorandom number defining said modulated first oscillator signal ~~code~~, said phase modulator electrically coupled to said second input port of said first mixer; and

an inverse phase modulator for inverse phase modulating a second local oscillator signal, modulated by the same pseudorandom number defining said modulated second oscillator signal ~~code as said phase modulator~~, said inverse phase modulator electrically coupled to said fourth input port of said second mixer to produce an output signal at said second output port with reduced spurious signals

2. (Original) The mixer circuit as recited in claim 1, wherein said phase modulator is a phase shift keying (PSK) modulator.

3. (Original) The mixer circuit as recited in claim 2, wherein said inverse phase modulator is a phase shift keying (PSK) modulator.

4. (Previously Presented) The mixer circuit as recited in claim 2, wherein said phase modulator is a first direct sequence binary phase shift keying (BPSK) modulator modulated according to a pseudorandom number (PN) code and said mixer circuit includes a PN code generator for generating said PN code.

5. (Original) The mixer circuit as recited in claim 4, wherein said inverse phase modulator is a second direct sequence binary phase shift keying modulator modulated according to said PN code.

6. (Original) The mixer circuit as recited in claim 1, further including an intermediate filter coupled between said first output port and one of said third and fourth input ports.

7-11 (Canceled)

12. (Original) The mixer as recited in claim 1, wherein said modulator and said inverse modulator are configured for QPSK modulation.

13.(Currently Amended) The mixer as recited in claim 1, wherein said modulator and said inverse modulator are configured for PSK modulation.

14.(Original) The mixer as recited in claim 1, wherein said modulator and said inverse modulator are configured for M-ary modulation techniques.

15. (Original) The mixer as recited in claim 1, wherein said modulator and said inverse modulator are configured for GMSK modulation techniques.

16-27 (Canceled)

28. (Currently Amended) A method of reducing the power levels of spurious output signals at the output of a mixer circuit comprising the steps of:

(a) providing a two stage mixer including a first mixer and a second mixer, said first mixer and said second mixer each ~~mixer~~ having a local oscillator port, an input port for receiving first and second local oscillator signals and an output port ;

(b) providing a first local oscillator signal and a second local oscillator signal;

~~(b)~~ (c) phase modulating ~~the~~ said first local oscillator signal with a pseudorandom ~~code~~ number defining a modulated first oscillator signal and applying said modulated first local oscillator signal ~~applied~~ to said local oscillator port of said first mixer; ~~and~~

~~(c)~~ (d) inverse phase modulating ~~the~~ said second local oscillator signal defining a modulated second oscillator signal and applying said modulated second local oscillator signal ~~applied~~ to said local oscillator port of said second mixer with the same pseudorandom number ~~code~~ used in step (c) ~~(b)~~ ; and

(e) connecting said output port of said first mixer to said input port of said second mixer.

29. (Original) The method as recited in claim 28, wherein modulating and inverse modulating in steps (b) and (c) are accomplished by BPSK modulation techniques.

30. (Original) The method as recited in claim 28, wherein modulating and inverse modulating in steps (b) and (c) are accomplished by QPSK modulation techniques.

31. (Original) The method as recited in claim 28, wherein modulating and inverse modulating in steps (b) and (c) are accomplished by GMSK modulation techniques.

32. (Original) The method as recited in claim 28, wherein modulating and inverse modulating in steps (b) and (c) are accomplished by M-ary modulation techniques.